

NATHANAEL BROOK Stationer at the Angel in Cornhill,
to the Reader.

The worthy, learned and most accomplished Edward Sherburne Esquire, Clerk of His Majesties Ordnance, having been pleased to convert the Ancient Astronomical Latin Poem of Manilius on the Sphere into a polite and elegant English one, hath moreover interlaced the same with Annotations concerning the Discoveries and Inventions of the Moderns, and hath subjoyned a large Catalogue of Astronomers and their Writings, amongst which he takes notice of Mr. John Collins; in the Narrative concerning whom, there is an account of many excellent Mathematical Treatises lost through want of due encouragement to print the same, and there being affairs of that nature proposed to myself and others to undertake, which will be too heavy a burden without the advice, assistance and encouragement of Learned and Noble Personages; concerning which perchance there may be particular Proposals hereafter printed: however to shew my willingness to promote such Designs, and the ill consequences of letting them sink, I have caused so much out of that Book, as concerns the said Mr. Collins, and the abovementioned Narratvie to be printed apart, as followeth:

MAfter JOHN COLLINS Accomptant, and a Member of the Royal Society, published in the year 1658. his Treatise entituled *The Sector on a Quadrant*, in which there are very curious Prints of two great *Quadrants*, and of two small *Quadrants* with particular *Projections* on them, serving for the Latitude of London: Albeit by Aid of other Lines each of those *Quadrants* is rendred Universal for Astronomical Use, as, finding the Hour and Azimuth, and other Spherical Proportions: The Author's chief Design in publishing such Prints, was to shew the World that the said Prints might be pasted on Copper or Brass, and so varnished, as to be rendred preservable from Dirt, or fulying, and sold at a cheap Rate, as now they are.

In 1659. he published his *Treatise of Navigation*, entituled the *Mariners Plain Scale new Plained*. In which, besides *Projections* of the Sphere, there are *Constructions* for many Astronomical Problems, and Spherical Proportions. The Book hath found good Acceptance, and is now like to become a Common Theme to the Scholars of Christ's Hospital London, whereof forty (by His Majesty's Bounty, and to His Immortal Renown in Establishing a Lecturer to instruct them) are constantly to be taught Navigation, and ere long 'tis to be hoped the Author will reprint the same with considerable Additions.

The same year he published a *Treatise of Geometrical Dyalling*, of good Esteem, both for the Newness and easiness of Method in situating the Requisites, and drawing the Hour-Lines. In which there being Spherical Proportions, and some Astronomical Problems, it deserves to be remembred in this Catalogue.

In the year 1667. he published in the *Philosophical Transactions* the Solution of a Problem concerning Time, to wit, about the Julian Period, with divers Perpetual Almanacks in single Verses; a Chorographical Problem, and divers other Things since, in the said Transactions, which we mention not, as being irrelative to the Sphere or Astronomy (viz. concerning Merchants Accompts, compound Interest, and Annuities, &c.)

We should be injurious to him, if we did not farther enlarge, by telling the World how much it is obliged for his Pains in exciting the Learned to publish their Works, and in acting the Part of an Ingenious Obstetrix at the Press, in correcting and in drawing of Schemes; So that he hath been Instrumental in furnishing the World with the many learned Mathematical Books here lately published

(for which, his chief Reward hitherto hath been to obtain from the Learned the Title of *Mersennus Anglicanus*) and many more may be expected, if moderate Encouragements towards Printing such Works, and Leisure for such an Affair be not impeded through the necessary Avocations for a livelyhood, and though it be besides my Design, yet I cannot but digress in giving him and others like minded (which are very rare to be found) their due commendations, in promoting the laudable Design of getting Learned Men to impart their Labours to be Printed; and exciting others to encourage the same, as being of singular Use and advantage to the Republick of Learning; through the want whereof many Learned Mens Works of much worth have been lost, suppressed or long delayed. As those of *Maurolycus*, Abbot of *Messina*, a large Catalogue whereof is to be seen at the End of his *Opuscula*, but by the Care of the learned Mathematician *Alphonsus Borellius* some of them have been published in this Age, ninety years after the Author's Death; as his *Apollonius* at *Messina* in 1656. containing the substance of the four first Books of the *Apollonius* of *Commandinus*, and two more Additional Books of *Maurolycus*, and all in less Room, and at a much cheaper price. And now by the like Diligence the said *Borellius* is publishing *Maurolycus* his *Archimedes* in Latin, reputed a Good one, after we have been long tired with the Common Latin bad one.

Through want of such care the many learned Works of *Vernation* of *Naples*, Master to *Josephus Auria*, have not hitherto come to light, as his Commentaries upon all *Archimedes*, *Apollonius*, *Serenus*, *Euclid*, *Ptolemaeus*, and divers others of the Ancients; which is much to be lamented; seeing he was, according to the Testimony of the said *Auria*, *Vir, Divinitate quadam Ingenii Ornatus*.

Nor those of the learned *Bernardinus Baldus*, Abbot of *Guaftalla*, mentioned at the End of his Comment on *Aristotle's Mechanicks*, amongst which are two Volumes of the *Lives of Mathematicians*, whereof *Bartholinus* in his Preface to the Edition of the *Optick Fragments of Heliodorus Larissens*, Printed at *Paris* 1657. gives an honourable Elogium.

Varenius could find no Stationer or Printer in *Holland* to undertake his *Treatise of Conicks and curved Lines*. See the Preface to his *History of Japan*.

If Sir *Charles Cavendish* deceased, Brother to the present *Duke of Newcastle*, had not (as 'tis credibly reported) given liberally toward the Printing of *Mydorgius* his four first Books of *Conicks*, they had never come to publick view; the four last, as likewise those of *Paschal the Younger*, yet remaining unprinted upon the same Accompt, of whom *Mersennus* gives this Censure, *quod Unica Propositione Universalissimâ, quadringentis Corrolariis armata, totum Apollonium complexus est*. The Manuscript as yet remaining unprinted (as I am informed) in the Hands, or at the Disposal of *Monfieur Du Prez* a Bookseller in *Paris*; the want whereof is the more considerable in regard the Author (besides the ordinary method) treats of the *Conick Sections*, as projected from lesser Circles of the Sphere.

Erasmius Bartholinus well known by his Additions to the second Volume of *Des Cartes*, as it is commonly termed; could find none to undertake the Printing of *De Beaunes Treatise De Angulo solido*, and other Treatises both of that Authors, and his own.

Jungius his *Phoronomicks*, and *Treatise De locis Planis, &c.* and other *Algebraical Tractates*, have remained at *Hamborough* above ten years since the Author's Death unprinted, for want of due Encouragement: Albeit a Jesuit, who writes his Life, makes him, although a Physician, equal in Mathematical Knowledge to *Des Cartes*.

On the like Reasons we may conceive we want the many learned *Algebraical Works*.

Works of our famous Countryman Mr. *Thomas Harriot*, (and of Mr. *Warner*, into whose Hands they fell) who is esteemed by some of the most knowing Persons alive to have been much Superiour to all that ever writ; and, that equivalent to what of his might have been forty or fifty years since known, is not readily to be expected.

For want of the like Encouragement, we have lost that most excellent Piece of the incomparable *Vieta*, his *Harmonicon Cœleste*; as likewise the Remains of *Alexander Anderson* the Scot, as his *Conicks*, *Stereometria Solidorum*, & *Triangul. Sphæric.* the want whereof *Guldinus* much bewails and excites the ingenious to enquire after them.

On the same Account the Remains of *Griembergerus*, as his *Conicks*, *Dialling*, and *Projections* of the Sphere have not come to light; and for the very same Reason the second Tome of *Galileus* in *English* doth, and is like to remain, unprinted. And for the same Reason the *English* Tongue is barren of Mathematical (and divers other) Books in respect of the *French* or *Latin*, there being little or nothing yet extant of *Catoptricks*, *Dioptricks*, *Statics*, *Mechanicks*, &c. and not much of *Perspective* and other Kinds, the number of Students in these Sciences, as yet scarce being sufficient to take off 500 Books, or so small an Impression as may give a Bookseller a Prospect of moderate gain in a competent time by his undertaking.

With the like Remora in *France*, have met the Works of the Excellent *Monsieur Fermat*, viz. *Euclidis Porismata restituta*; his *Treatise De Locis Planis Solidis Linearibus* & *ad Superficiem*, and his *Treatise De Contactibus Sphæricis*.

As also the Remains of the much knowing *Lalovera*, as his *Geometrical Dictionary*, sive *Explicatio vocum Geometricarum*, four Books *Problematum Illustrum*, four Books *Problematum Physico-Mathematicorum*, and a Collection of Letters between him and the learned, containing the Solution of many Problems of great Curiosity and Difficulty, which seeing they are not like to get Printed there, they have written over to know if they would be undertaken here; promising to send the MS. Copies. And having hinted thus much at the Instance of this Ingenious and Industrious Person, to the Curious, and Generously learned; I come now again further to acquaint the Reader, that we have more particularly obtained from him an Account of two of his own Designs, relative to the Sphere and Astronomy.

The one of *Geometrical Dialling*, whereby reflex Dyalling is rendred Geometrical, and reduced to a Method of Calculation; so that if a Glass were placed at Random, and Lines drawn on the Plain by chance, by either Method, Points might be found in the said Lines which joyned should be the Hour Lines; and the like when the Glass is so placed, that the Hour Lines may be drawn in that Part of the Room which is most capable of them, and as a Corollary of this Doctrine a Dial for any Latitude may be suddainly divided from a Line of Tangents parallel to any Line proposed, and that without any Calculation for the Horary Divisions.

The other a *Treatise of Projections of the Sphere*, and concerning *Spherical Trigonometry*; in which many extraordinary Cases will be solved; those Proportions mentioned before in the Narrative concerning Mr. *William Oughtred*, several wayes more easily demonstrated, and all Spherical Triangles measured by a new Method (not by him formerly insisted on) after the manner of *Plain Triangles*; all which perchance may be handled in some little Tractates concerning the Use of Prints of several other Instruments designed to be cut, pasted, and varnished, as before mentioned; viz. the *Analemma*, the double *Horizontal Dial*, the *Logarithmical Serpentine Line*, Prints of *Logarithmical Rulers*; whereof if there be three, they may be so placed as to lie still all Day, and as fast as the Height of the Sun is given, shall find either the Hour or Azimuth universally by bare Inspection.

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